

Clinical Section

Clinical Aspect of Shock

By HORACE LAMONTAGNE, M.D.

Shock is a condition which has clinically been recognized since antiquity. It is only within the last two centuries, however, that the word "Shock" has been applied to this state.

Shock is a condition of collapse which follows upon trauma to tissues. This state of collapse is associated with certain well defined phenomena with which we are all more or less familiar. Firstly we have all observed the vasoconstriction of shock with its resultant pallor. This vasoconstriction involves both the arteries and veins of all the organs including the heart, lungs, liver, spleen and kidneys. This was shown by Lister in 1858 to be dependent upon some action upon the blood vessels' walls, not entirely connected with the nervous supply, since when the nerves had been cut the vasoconstriction persisted.

The heart itself is involved in the general vasoconstriction and may go into a state of contraction which at times interferes with the cardiac output. Along with vasoconstriction there is also the frequently observed rise in the venous pressure.

With constriction of the peripheral arteries and veins there comes a damming up of the blood within the capillaries, and as well an opening up of capillaries which were empty of blood with a resulting enlargement of the capillary bed. This condition is relieved if the blood is again allowed to flow unimpeded through the vessels.

Theories of Causation

There are numerous theories of the cause of shock. It is certain that no one theory explains all of the phenomena occurring in the condition and probably each of the theories represents only a contributing factor in an all-inclusive whole.

The theory that shock is toxic in origin has held considerable prominence during the period of the 1930's. It has been shown fairly conclusively that toxic substances in the ordinary sense of the word are not responsible for the cause of shock although as we shall see later there is accumulating considerable evidence that this theory may be again accepted.

Histamine or Histamine-like substances have never been demonstrated in excess in the blood in shock. However, Scudder's "Shock" presents the plausible suggestion that shock is toxic in origin in the sense that certain substances, such as potassium, which are non-toxic when contained within the cells' membranes become toxic when they are released into the intracellular fluid.

The theory of the loss of circulating fluid has to be given a good deal of consideration as this is one of the changes which is common in shock regardless of its etiology, whether it be hemorrhage, trauma or markedly rapid loss of fluid from the body as occurs in cholera. Hemorrhage of course presents the most revealing condition where loss of circulating fluid occurs. It has been stated that "Shock is Hemorrhage and Hemorrhage is Shock."

The neurogenic theory of the causation of shock has been presented by many investigators and theorists who simply attempt to explain the vasoconstriction in terms of stimulation of the sympathetic system or inhibition of the parasympathetic system's control of the blood vessels; that is to say, sympathetico-parasympathetic unbalance.

The relationship of the adrenal glands to shock was recognized from the first investigations with relation to these organs. Pathological changes in the adrenal glands are commonly seen in post-mortem examinations following death from shock.

The Changes in the Blood in Shock

The blood changes in shock have been carefully investigated from the viewpoint of the hematologist. In the field of biochemistry the investigations have been more extensive but less satisfactory because of the variations encountered from one case to another.

The hematological determinations of the haemoglobin content of the blood, the cell volume index or hematocrit, the red blood cell count and the specific gravity of the blood and plasma have all proven invaluable in the diagnosis of early shock. In their interpretation however one must not fall into the misconception that all shock is associated with haemoconcentration. Rather, shock is associated with reduction in blood volume, what ever the cause. In shock due to burns where there is no loss of blood but an escape of fluid from the capillaries into the tissue spaces we get the classical picture of haemoconcentration with a rise in the haemoglobin and increase in the hematocrit and an increase in the red cell count. At the same time the plasma proteins are increased in density as well as the electrolytes of the blood. On the other hand, in shock due to hemorrhage there is a progressive hemodilution with no evidence of haemoconcentration at any time. The haemoglobin, red cell count, and hematocrit progressively decrease. The plasma proteins are maintained at normal by withdrawal of protein from tissues; there is an increase of the volume of the remaining blood by withdrawal of fluid from the tissue reservoir in an attempt to rectify

the changes in pressure which have resulted from a decrease in the whole blood volume. Recent careful investigations agree upon this.

With the changes in fluid balance which occur there occur changes in the electrolytes of the blood. In whole blood there is a decrease in sodium and an increase in potassium in traumatic shock without hemorrhage. However in hemorrhage where large quantities of potassium are lost from the blood in the red blood cells which escape from the body the total blood potassium may at first be decreased but then gradually increases in untreated cases above normal. Scudder reports that in twenty-six out of twenty-eight cases of shock from all causes which he studied the potassium level of the blood rose. He further states that in cases where the plasma potassium rose 100% the mortality was 100%; where the plasma potassium rose from 50 to 100% the mortality was 71% and where it rose 50% or less the mortality was 38%.

Thus, we have at hand several hematological techniques which will aid in the diagnosis of shock. A rising haemoglobin percentage is the simplest method for early detection of shock in non-haemorrhagic cases. The determination of the specific gravity of the whole blood and plasma has aided in determining the degree of hemoconcentration and dilution. This is carried out by using the falling drop method of determining the weight of a drop of fluid described by Barbour and Hamilton. The apparatus is simple and easy to operate and gives an extremely accurate method of determining degrees of hemoconcentration.

Another method of determining hemoconcentration is simply to determine the refraction index of the plasma, which has been prepared under fixed conditions, by use of a simple pocket refractometer. The results of this test appear to be satisfactory in determining the concentration of the blood plasma. Of course, it is not possible by this method to determine the concentration of whole blood.

Most authorities agree that the white blood count is elevated in shock. This is only generally true, however. One well-known textbook of hematology states that leukopenia is characteristic of shock.

Changes in the solids of the blood from a biochemical viewpoint have been carried out extensively, without any definite conclusions being reached. Increases and decreases in all the various commonly-determined elements of the blood have been reported. One change, however, seems to be constant in that there is a rise in blood potassium regardless of the cause of shock.

Blood Potassium

Scudder in his textbook "Shock" lays considerable emphasis upon the rise in the blood potassium which occurs in shock and bases the rationale of his treatment upon this.

A study of the metabolism of potassium reveals that normally it is found inside of the cell membrane in higher concentrations than in the fluids surrounding the cell. Furthermore if by some means the potassium of the extracellular fluid is elevated to a very moderate degree there appear certain toxic changes in the cell.

The action of excessive potassium in perfusing fluid upon cardiac muscle has been known for many years. Ventricular fibrillation as a result of potassium poisoning is a well known phenomenon of the physiology laboratory. Moderate doses of potassium by mouth will produce in the human being changes in the electrocardiograph with slowing of the sinus rhythm and a lowering of the QRS complexes and a decrease in the PR interval.

The action of potassium upon blood vessels is also significant in that injected intravenously it causes first a venous constriction with decreased cardiac output and a fall in blood pressure. The heart may stop in diastole with large doses of potassium.

Large doses of potassium cause a fall in blood pressure. A change in blood potassium is characteristically found in shock and this is an indication of profound cell damage.

The Treatment of Shock

The earliest treatment of shock was the application of heat. The scientific basis for this was not established until well on in the twentieth century when it was found that in shock the metabolism fell as much as 30% below normal.

The application of heat in the form of warm blankets, hot water bottles and so on is correct and necessary for the treatment of shock. Anything which tends to increase vasoconstriction such as cold is to be avoided in shock.

Elevation of the foot of the bed gives a better blood supply to the vital centres.

The use of fluids in combating shock is by no means new. Methods of restoring blood volume have been described as far back as 1723. Intravenous use of fluids to replace blood volume is the method of choice in shock because of the urgent necessity of replacing fluids quickly. Shock must be treated as an immediate emergency in this respect since in some cases a matter of minutes seems to make the difference between life and death. Also, the amount of fluid used is important since at times large quantities are necessary before the individual in shock will respond to such treatment. The fluids which are used vary considerably and so does their efficacy. Normal saline is only of temporary benefit. The substitution of hypertonic for normal saline was a step forward since besides supplying the necessary fluid it tended to cor-

rect the electrolyte imbalance which had occurred in shock.

Gum acacia solution, generally hypertonic, was introduced following the first Great War and had considerable vogue up until the present time. However, its use is not without danger and with the introduction of plasma and plasma banks its use has been discarded.

The use of any hypertonic solution to an excessive extent is to be deprecated because of the fact that in shock, "internal transfusion" by withdrawal of tissue fluids into the blood stream brings with it large quantities of tissue potassium which indeed may be made to reach lethal levels by this method.

Transfusions are the best method of restoring blood volume in shock. Blood which has recently been collected should be used in cases where hyperpotassaemia has occurred because of the fact that large quantities of potassium are released from the red blood cells of stored blood.

At the present time preserved plasma has almost completely replaced the use of preserved blood for this purpose. Plasma has the advantage that with its storage the escape of potassium from the red cells is obviated. Dried plasma is the most readily available in the absence of a plasma bank and this material can be kept over long periods of time without any deterioration. The use of dried plasma has proven life-saving upon several occasions in the past year in our own hospital.

Oxygen administration in the treatment of shock is indicated early. The lack of oxygen in the blood in shock is a well-recognized phenomenon. That moderate lack of oxygen has a marked effect upon nerve cells and their functions is common knowledge. Anoxaemia of very short duration may result in permanent damage to the nervous tissues of the higher centres. The trapping of blood in the capillaries in shock further aggravates the condition of anoxaemia. With anoxaemia there is an escape of potassium from the muscle tissues into the intercellular fluid which in turn aggravates the condition of shock. Thus anoxaemia has a direct effect upon the tissue metabolism and at the same time sets up a vicious cycle which causes the shock to become more profound.

The use of 100% oxygen through the small aviator's mask has proven most effective in our cases. The oxygen is delivered at the rate of 7 litres per minute to the patient. In postoperative shock the use of 100% oxygen also has the effect of relieving distention by the gradual resorption and excretion of the nitrogen from the distended bowel, and this has a beneficial effect upon the regression of shock.

The control of pain in the treatment of shock is a factor which must not be overlooked. In fact the con-

trol of pain may be considered to be of primary importance in some forms of shock. For this purpose morphine has a place in the treatment of shock as well. Mechanical methods of relieving pain have proven most efficacious in the lowering of the mortality from shock, especially in patients with fractures where transportation is necessary, as witness the now familiar story of the Thomas splint in the war of 1914-18 and since.

The removal of the traumatized focus in the treatment of shock needs little discussion. The use of the tourniquet, debridement, amputation and the fixation of fractures as well as the tanning of burns all have this end in view. These methods must be applied as soon as possible after the lesion is produced as their delay may result in the development of shock so profound that recovery is impossible. On the other hand their early use may prevent the occurrence of shock altogether.

Gastric drainage and suction have a definite place in the treatment of all forms of shock. The gastric secretion contains up to four times the concentration of potassium salts as does the blood. Thus its escape from the body aids in the reduction of the potassium of the extracellular fluids.

The recently introduced method of using Adrenal Cortical Hormone in the treatment of shock has met with almost general approval. The correction of the electrolyte balance as indicated by a reduction of the plasma potassium following its use, the marked clinical improvement of the patient which follows quickly upon the intravenous use of Adrenal Cortical Hormone in sufficient quantities all indicate its usefulness in the treatment of shock. Those who have reported lack of success in its use seem mainly to have erred in the direction of not using enough of the substance. Generally speaking, intravenous doses of 20 cubic centimetres of the solution containing 50 Dog units per cc, such as is found in the preparation Eschatin are the minimum required to give a prompt response and in our practice this has come to be the dose which we use. The dose may be repeated at short intervals if necessary; the use of 150 cc of Eschatin within a few hours has shown no deleterious effects.

The combined use of Eschatin and hypertonic salt solutions, generally 5% sodium chloride has proven most efficacious in the treatment of shock in the experience of Scudder. In his series of cases the use of Adrenal Cortical Hormone combined with hypertonic solution of sodium chloride resulted in a definite increase in the blood volume with corresponding changes in the plasma concentration, hematocrit, hemoglobin and red blood count and a parallel decrease in the potassium of the plasma. The alkaline reserve is increased by the use of Eschatin by the retention of bases and at the same time the excretion of potassium through the kidneys is enhanced.

The fact that potassium is increased in shock does not necessarily mean that shock is due to potassium poisoning. Rather the potassium level is simply a measure of the damage done to the cells. No proof exists that potassium poisoning and shock are the same.

Summary

The picture of shock is described. Clinical signs and symptoms are discussed.

The various theories of the cause are mentioned and their significance briefly discussed.

The blood changes in shock are reviewed and methods of determining the changes of the blood are mentioned.

The significance of the escape of intracellular substance in trauma to the cell with the use of potassium as a measure of this change is discussed.

The various methods used in treating shock are separately treated and an attempt to evaluate them is made.

Summary of Treatment

1. Warmth, elevation of foot of bed and control of pain.
2. Plasma, fresh blood transfusion, or 5% sodium chloride intravenously.
3. 100% oxygen by aviator (B.L.B.) mask.
4. Gastric suction to lower potassium content of body.
5. Eschatin 20 ccs or more intravenously p.r.n.

REFERENCE:

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MONTREAL

Health Insurance—How Soon?

T. C. ROUTLEY, M.D., LL.D., F.R.C.P. (C)
General Secretary, Canadian Medical Association

To a considerable degree, the future of medical practice in Canada may have been placed in the hands of 41 members of Parliament who constitute the Select Committee to whom has been entrusted the responsibility of examining and reporting upon Social Security proposals including health insurance.

The Committee first met on Tuesday, March 16th on which occasion it was addressed by the Honourable Ian Mackenzie, Minister of Pensions and National Health and Chairman of the Cabinet Committee on reconstruction. After dealing briefly with a number of general proposals, Mr. Mackenzie plunged into the subject of health insurance. He had much to say on the measure, reference to which will be made in this communication; but, before dealing with his comments it would be well to have a look at the proposals.

More than eighteen months ago, there was established within the Department of Pensions and National Health an Advisory Committee on Health Insurance with Dr. J. J. Heagerty as Chairman. Associated with him was a group of civil servants interested in the legal, actuarial and statistical aspects of the subject. The Heagerty Committee has worked hard for a year and a half, has taken counsel and advice from many people and has tabled draft proposals which will now become the subject of careful study at the hands of the Select Committee.

Briefly stated, the proposals are as follows:

(1) There shall be an enabling federal act relating to health insurance, public health, the conservation of health and the prevention of disease.

(2) There shall be a model provincial act of health insurance which in substance shall be accepted and adopted by any Provincial Government desiring to obtain federal subsidies for health insurance.

The enabling act is brief. It permits the Minister of Pensions and National Health to set up within his department a Health Insurance Branch which shall have the power to carry on negotiations with any province which may be agreeable to introducing health insurance legislation which guarantees benefits of the standards, under conditions and for the classes of persons as set forth in the enabling act. A province entering into negotiations with the federal authority with respect to health insurance must also guarantee to carry on simultaneously a public health program of a character, scope and extent which will be satisfactory to the federal authority. The federal authority in turn undertakes to provide financial aid to the provinces both for the actual carrying out of health insurance and for public health benefits. The federal

authority also has the right to appoint inspectors to visit the provinces to see that the money which has been voted to the provinces is being properly and adequately expended.

Model Provincial Health Insurance Act

The model provincial health insurance act sets forth the following:

The provisions shall be applicable to all persons in the province coming under an economic level to be set by the Province.

Funds shall be provided by the federal and provincial governments, insured persons and employers.

Children under 16 years of age will be included without the payment of premiums.

The financial arrangements suggest that the sum of \$26.00 per insured person per year be set up to cover all benefits, including administration.

Administration shall be under a Commission, the Chairman of which shall be a medical practitioner who has had at least ten years experience in practice.

The benefits shall include the following:

- Medical, surgical and obstetrical benefits;
- Dental benefit;
- Pharmaceutical benefit;
- Hospital benefit;
- Nursing benefit.

There shall be free choice of doctors by patient, and vice versa.

There shall be no exclusions; *i.e.*, the act will cover all persons within the economic level, including indigents; and it shall also provide all necessary services, including general practitioners, specialists and consultants.

The insured shall be obliged to name a family doctor or general practitioner.

Specialist services may be secured ordinarily through the family doctor.

The medical profession shall be paid on a tariff and by a method agreed upon between the medical profession and the provincial commission. This may be by capitation, fee for service, salary or a combination of any two or more methods.

There shall be set up in each province administrative regions in each of which there shall be a regional medical officer who must have had years of experience in private practice.

Provision has been made for the establishment of Medical Advisory Committees, both regional and provincial.

The act also provides for representation on the commission of those receiving the benefits as well as those providing them.

Safeguards are being introduced to guarantee that ample clinical material will be available in teaching hospitals associated with medical schools.

Hospital benefits include general ward service and laboratory facilities. Pharmaceutical benefits will probably be assisted by a formulary. Dental benefits will apply particularly to children and some remedial services.

Mr. Mackenzie's Comment

In presenting the proposals to the special committee, the Honourable Mr. Mackenzie said that he considered the plans and the report associated with them the most comprehensive that had ever been compiled. He advised the Committee that in his opinion they would have an opportunity to consider, clause by clause, suggestions which were calculated to make possible a health insurance measure for Canada on a sounder and broader basis than is to be found in any other part of the world. Mr. Mackenzie's presentation to the committee was marked by its clarity and forcefulness. Here are some extracts from his address:

"Health insurance is unquestionably the greatest present lack in Canada's system of social security."

"If we are to do something practical and useful for the people of Canada, quickly and effectively, it may be more to the point if, for the time being, we concentrate our efforts on filling out the gaps in our existing social security system . . . The most conspicuous gap is in the field of health."

"Forty-one countries have adopted health insurance. Thirty-three of these are compulsory schemes."

"There is no doubt that public opinion in the New World with regard to social legislation has changed and progressed rapidly in recent years."

"Here in Canada, with a simple stroke of the knife, we cut through one of our constitutional difficulties and inaugurated Unemployment Insurance."

"The British Columbia Government completed a draft Bill of Health Insurance in 1934 and enacted a provincial statute of health insurance in 1936. This Act has never been put into operation chiefly due to the fact that the medical profession objected to certain features of the Act and declined to co-operate."

Referring to House of Commons debates on Unemployment Insurance, Mr. Mackenzie said:

"It is fairly clear from the debates on this Bill that it was the Government's intention that, if Unemployment Insurance stood up to the constitutional test in the courts and its operation proved a success, the Dominion would in due course move on to the field of health insurance."

Referring to his early interest in Health Insurance, the Minister said:

"When, in 1939, I found myself responsible for the administration of a department in which active planning for health insurance was being carried on, I gave my strongest support and encouragement to those efforts."

Speaking of the Health Insurance Committee which for a year and one-half under Dr. Heagerty's Chairmanship, had developed the present report on Health Insurance, Mr. Mackenzie said:

"The Committee did not work in a back room. It reached out into the country and it sought the advice of a great variety of organizations and institutions considered likely to have a direct interest in this important subject."

Referring to the C.M.A. Mr. Mackenzie had the following to say:

"Perhaps the culminating achievement of the Committee, aside from the draft proposal which constitutes its report, was the unprecedented assembling between annual conventions for the first time in 75 years of the General Council of the Canadian Medical Association in Ottawa, January last, when this great and influential body formally went on record in favor of the principle of health insurance. That decision was not reached until after members had familiarized themselves quite thoroughly with the general principles of the committee's report. The resolution is not to be interpreted as an endorsement of this or any other specific plan. The Medical Association reserved its right to comment on any particular provisions, but it was nevertheless a great milestone in the path of progress in Canada when the medical profession of Canada, through its General Council, formally pledged itself to the principle of health insurance."

Proceeding to elucidate considerations leading to the form in which the Advisory Committee's proposals were couched, Mr. Mackenzie said the following six principles might be stated as concisely underlying the plan:

(1) That no scheme of health insurance can be successful without a comprehensive public health program of a preventive nature.

(2) That a real health program as distinguished from a policy of cash benefits can be effective only if it embraces the entire population.

(3) That the principle of compulsory contributions should be embodied in any plan of health insurance to the greatest possible extent.

(4) That public opinion and efficiency demand to the greatest possible extent a national plan.

(5) That the constitution, as at present understood and interpreted, prevents the Dominion parliament from adopting a single comprehensive national Health Insurance Act.

(6) That for practical reasons, a constitutional amendment is not desirable.

Public Health Clauses

The draft proposals place particular emphasis upon Public Health and preventive medicine. Mr. Mackenzie added that it is proposed that there should be attached to the Dominion Act, as a list of types of health measures with respect to which the Dominion is prepared to enter into agreement with the provinces for the purpose of instituting a health program, the following:

1. The provision of free treatment for all persons suffering from tuberculosis, including the construction of additional buildings and bed accommodation.

2. The provision of free treatment for persons suffering from mental illness and the care of mental defectives, including buildings and accommodation.

3. The provision of preventive and free treatment for persons suffering from venereal disease.

4. The provision of training facilities in public health work for physicians, engineers, nurses and sanitary inspectors.

5. The undertaking of special investigations concerning public health measures.

6. The establishment and undertaking of a program of physical fitness development for youth.

Speaking of coverage—the people to whom health insurance should apply—the Minister said this:

"The plan is founded upon the principle that it must cover the entire population. Since our fundamental purpose is the improvement of the health of the people, we feel that this proposed legislation must apply to everybody."

But realizing that certain autonomy and flexibility must be left to the provinces, the Minister continued:

"Since there can be no standard and uniform limitation, it is better that the Dominion should adopt the basic assumption that all may benefit, leaving it to the individual provinces to determine whether or not

certain classes could or should be excluded. In any event, the health ideal calls for total coverage."

Proceeding to the question of costs, the Minister said:

"The basic policy embodied in this proposal is the contributory principle. The modern trend throughout the world with regard to all forms of social insurance is that it be contributory. Under a contributory system the benefit becomes a right and not a concession. It is the very essence of insurance that the person who hopes to benefit shall pay a premium supporting a financial plan which provides the benefits."

"Industry also has a definite stake in the health of our working population. It has been estimated that every day fifty thousand workers are absent from work through illness."

Thinking in terms of optimum health, Mr. Mackenzie said:

"The Advisory Committee recommends not merely a health insurance bill—it is a health bill—a bill that is designed to do constructive work in raising the positive health standard of the people of Canada."

"The health of Canada is one single problem and we cannot break it up into geographical segments."

The Minister then spoke of constitutional difficulties and the advisability of provincial administration. He said:

"The provinces control the regulation of the medical profession. Each province has its statute setting up a medical council or medical college with the right to license practitioners and to discipline and regulate their activities."

"The Advisory Committee contemplates a federal statute as the foundation stone of the structure. Health insurance must go hand-in-hand with a broad program of preventive health measures. The primary consideration is the health of the people."

"The Dominion Government will assist the provinces, both with respect to a public health program and with respect to health insurance, but will not help a province with regard to either one of these projects unless both are put into effect."

Thus it will be seen how emphatically the Minister links preventive and curative medicine in an all-out health insurance program.

Dealing with the time involved in bringing this measure into operation, the Minister had the following to say:

"Due to the fact that health insurance will require legislation by both the Dominion and provincial parliaments, and the fact that the provincial legislation is exceedingly complex and will require a great deal of study, it is considered that all this proposed legislation could not be brought into operation within at least two years."

In summing up his presentation to the Select Committee and making reference to the fact that health insurance in Canada along with other social security measures will cost money, Mr. Mackenzie said:

"If we can pay for victory over the curse of Hitlerism, can we not also pay for victory over the scourge of disease, insecurity and poverty?"

On Friday, March 19, the Select Committee began its considerations of the draft Bills which were outlined in detail by Dr. Heagerty, the Chairman of the Advisory Committee. The Committee proposes to meet twice a week. Witnesses and experts who have anything to say on the subject will be heard. The Canadian Medical Association is preparing a brief to present to the Committee and representatives of the Association will be in attendance upon the Committee more or less constantly. The medical profession of Canada may rest assured that its interests will not be

lost sight of by those who represent the profession before the Committee. The proposed legislation may, and likely will change the practice of medicine for generations to come. It is axiomatic to say that, if the Canadian public is to receive adequate medical care, using that term in its broadest sense, then those providing that care must receive adequate pay and recognition for their services.

How Soon?

How soon will health insurance become effective in any province?

Who can tell? Mr. Mackenzie says it will take two years to grind out the necessary legislation. But we have a war to win and pay for—factors which may play very important roles in "dating" health insurance.

Be that as it may. Health insurance is around the corner—in people's minds. They want it. Inevitably, it will come. We as a medical profession, more perhaps than any other group, are vitally concerned, and we must do our best to see to it that the legislation, when it is placed on the statute books, guarantees progressively better medical services to the people and conditions of work and remuneration which are eminently satisfactory to those who provide the service.

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Increase in Venereal Disease

Attention of the readers of the *Review* is directed to the article appearing in the Health and Public Welfare section of this issue on Venereal Disease. It is rather disquieting to see that there is a very considerable increase in Venereal Disease, and that this increase is apparent both in the civilian population and in the Armed Forces, although it is greater in the civilian population. We think that probably some of the apparent increase is relative rather than actual in view of the fact that we are certain that reporting of Venereal Disease by the general practitioner has been much more satisfactory this past year than in any year since the formation of the Department.

In looking over the figures set out in the article by Doctor Backman, there are two or three significant things which we would like to bring to the attention of the medical profession, and the first is the relatively higher increase in venereal disease infections in the younger age groups, namely the ages from fourteen to twenty-four. We believe that the general relaxing of community morals and the large influx of young girls into the city as a result of work being offered as maids and waitresses in cafes, etcetera, is chiefly responsible for this increase. These girls, we believe, are "unmoral" rather than "immoral" and unfortunately when they become infected they become a real source of danger to the military personnel.

It would seem that the community should have some responsibility in seeing that provision is made for

adequate recreation for this type of girl in order that she may be kept off the street and in good wholesome surroundings.

Another disturbing feature of the whole program is the comparatively small percentage of sources of infection or contacts given in respect to the reported cases, being approximately only thirty per cent. In other words, two-thirds of the cases reported have had no follow-up work done in respect to locating and bringing in for examination and treatment the suspected source of infection. *We would urge all physicians to obtain all information available on cases that come in for treatment—as to the suspected source of infection, and to transmit this information to the Department in order that proper investigation can be made.* One will see in the article that when sources and contacts of infection are reported to the Department we are successful in having investigation made in 85% of the cases.

We would like to point out that the services available from the Department to members of the profession are as follows:

1. Education—Lectures, Radio Talks, Distribution of pamphlets and literature.
2. Free Clinic—St. Boniface Out-door Department.
3. Free Keidel tubes for blood Wassermanns.
4. Free Arsenicals.
5. Payment of a nominal fee for administration of arsenicals and bismuth to indigent patients where there are no facilities for free treatment outside Greater Winnipeg.
6. Follow-up service—Trained nurses to follow-up lapsed cases and to find sources and contacts.

Make use of these facilities and assist in the Department's program of Venereal Disease control.

—F.W.J.

Abstract

Effect of Heat and Cold on Abdomen

Bisgard, Matson and Hirschmann (J. Am. Assn. 1942: 118,447) found by experiment that external heat inhibited the activity of the stomach and intestines, thus proving its benefit in local inflammatory conditions like appendicitis. External cold applied to the abdominal wall increased the activity of the stomach and intestines and caused an increased flow of HC_1 . Thus an ice bag should not be used in haematemesis. Conversely, hot drinks increased the activity of the stomach and cold slightly inhibited its action.

Abstract

Oesophageal-Hiatus Hernia—D. Young in Rev. Gasterenterol., Sept. 1942, p. 345 states that an elderly patient who complained of epigastric or substernal distress at night, relieved after sitting up in bed or getting up and walking around, probably has oesophageal hiatus hernia. As the pain is often referred to the neck or shoulder it may be confused with angina. But hernia patients get relief by moving about whereas angina patients like to remain motionless.

Symptoms are more apt to occur when the patient is recumbent, but distress or vomiting may come on while eating. Dysphagia or hiccup may also occur. Ulceration and haematemesis sometimes supervene.

Diagnosis may be confirmed by X-Ray of the stomach in the Trendelenberg position.

A great many patients with oesophageal hernia may be comfortable if they eat frequent small meals composed of soft foods, and remain upright for a time after eating and sleep on three or four pillows. Weight reduction for the obese is helpful. All activities that increase intra-abdominal pressure such as bending, coughing, stooping or straining at stool should be avoided. Phrenic section may relieve the condition if other measures fail or may serve as a preliminary step to more radical surgical intervention.

Obituaries

Dr. Herbert McGregor

The following obituary notice is from the pen of Dr. F. W. Andrew, Summerland, B.C., friend and classmate of the late Dr. Herbert McGregor, of Penticton, B.C. Dr. McGregor was born in Manitou, played football on Medical champion teams, graduated in Medicine from Manitoba Medical College in 1907, and was well known to many doctors in Manitoba, both from early association and from contacts with him as a member of the Council of the Canadian Medical Association. His son is a doctor in the armed services. His wife and daughter also survive him.

The death of Dr. Herbert McGregor while at the height of his professional career has created a gap in the life of the district around Penticton, and, indeed, a large part of southern British Columbia. His interest in organized medicine, to which he gave his time unsparsingly, gave him a wide acquaintance among the members of the profession. As a representative from our provincial association, he attended a recent meeting of the council of the C.M.A. in Ottawa, and contributed his share in the proposed plan for Health Insurance that will shortly be considered by Parliament. Every day was planned and busy. In a large practice, he gave a sympathetic attention to every patient, and his advice was in detail and fitted to the individual. With his confreres, he was ever willing

to assist in consultation and with tactful advice. One would marvel that he was able to keep abreast with the voluminous medical literature, but this was due to his ability to speedily reject the chaff, and to store away the kernels for future use. Probably his former experience as a reporter for the *Winnipeg Free Press* gave him a useful training in this respect.

Outside of his professional work, he maintained an active membership in the Rotary and other organizations. He was a lover of clean sport, especially of baseball, golf and his shotgun. The Doctor and Mrs. McGregor, recently the president of the Federated Women's Institutes of Canada, were both fluent speakers and had a quick sense of humor. Hence, their home was one of warm and spontaneous hospitality. After thirty-five years of practice, he fell a victim to a failing coronary artery, an affliction that claims too many members of an overworked profession.

◆ ◆

Dr. Robert W. Knechtel

Dr. Robert W. Knechtel died March 29 at his home in Winnipeg, in his 82nd year. Born at Brussels, Ontario, of pioneer parents, he graduated in medicine from Trinity College, Toronto, and practised five years at Ripley, Ont., before taking post-graduate work in London, England. In 1897 he came to Winnipeg, practised there for twenty years, then retired to his farm at Souris, where he carried out experimental work in wheat breeding. In 1936 he returned to Winnipeg. He is survived by his widow.

Clinical Meetings

Winnipeg, Man., 18th Feb. 1943

To: All Medical Officers

Units & Training Centres

Military District No. 10.

Re: CLINICAL MEETINGS

Medical Board, Army Reception Centre.

1. A clinical meeting will be held in the Heart and Lung Room, Medical Board of this Reception Centre every Monday from 17:00 hours to 18:00 hours.

2. There is a large supply of clinical material to draw on and many interesting cases will be reviewed by specialists on the Board.

3. Lt.-Col. Lynn Gunn, Officer Commanding, Medical Board will welcome all Medical Officers and any civilian practitioners who may be interested.

P. G. Bell,

P. G. Bell, Colonel, R.C.A.M.C.
District Medical Officer, Military District No. 10.

Personal Notes and Social News

Dr. Arthur Stevenson, third son of Dr. and Mrs. E. C. Stevenson of Gothenburg, Nebraska, was married on March 27th to Dorothy Vivienne, only daughter of Mr. and Mrs. H. H. Bowden of Winnipeg.



Lieut. George Albert Waugh, son of Dr. and Mrs. R. J. Waugh of Carberry, Man., was united in marriage on April 3rd to Dorothy Elizabeth, second daughter of Mr. and Mrs. T. J. Wilton of Carman, Man. After the ceremony Lieut. and Mrs. Waugh left for a honeymoon in the East.



Dr. F. L. Jamieson of Carman, Man., left on March 30th for enlistment in the Armed Forces.



Lt.-Col. G. Stuart Musgrove, R.C.A.M.C., son of Dr. W. W. Musgrove of Winnipeg, is now an A.D. M.S. with the British Forces on the Burma front. Two other sons are also serving in the forces: Capt. J. Edward, R.C.A.M.C., late Fellow in Surgery, Mayo Foundation, is at Camp Shilo; and Pay Sub-Lieut. Ronald J., is stationed at Halifax.



Capt. Norman Paul Merkeley, R.C.A.M.C., second son of Dr. and Mrs. H. J. Merkeley of Winnipeg, was married on April 9th to Margaret Ann, only daughter of Mr. and Mrs. Roland O. Harrison of Winnipeg.



Dr. John Alexander MacDonnell, son of Mrs. A. D. MacDonnell, was married March 25th to Dr. Asa Kristjansson, second daughter of Mr. and Mrs. Fredrik Kristjansson of Winnipeg. The bride and bridegroom were recent graduates of the University of Manitoba. Dr. and Mrs. MacDonnell will reside in Winnipeg, prior to joining the armed forces.



Lieut. William Reginald Govan, R.C.A.M.C., son of Mr. and Mrs. Eben Govan of Winnipeg, is to be married early in June to Louie Virginia, youngest daughter of Mr. and Mrs. Frederick William Leistikow of Moose Jaw, Sask.



Dr. E. S. Bolton of Brandon has been elected head of the Brandon Nutrition Committee.



Dr. Charles Hallson, '40, of Houston, Texas, has been appointed acting superintendent of Jefferson Davis Hospital, at Houston.

Dr. and Mrs. Hugh F. Cameron of 254 Wellington Crescent are celebrating the birth of a son (Donald Roderick) on April 10th, at the Winnipeg General Hospital.



Capt. H. L. McNichol, R.C.A.M.C., formerly of Flin Flon, Man., recently returned from overseas.



Dr. V. J. Guttormsson of Lundar, Man., was recently appointed a Lieutenant in the R.C.A.M.C.



Lieut. C. F. Benoit, R.C.A.M.C., son of Mr. A. V. Benoit and the late Mrs. Benoit, of St. Boniface, is engaged to be married early in June to Elizabeth Marie, daughter of Mr. and Mrs. Archibald F. McKinnon of Norwood.



Appointment of the following medical doctors, graduates this Spring at the University of Manitoba, as Lieutenants in the Royal Canadian Medical Corps of the active army is announced. Drs. J. G. Ward, C. F. Benoit, M. M. Wasserman of Regina, F. C. R. Chalke, D. S. Noble.



Squadron Leader and Mrs. Walter Alexander are celebrating the arrival of a baby daughter at the Royal Alexandra Hospital, Edmonton, Alberta, on April 21st, 1943.



Lt.-Col. and Mrs. A. M. Davidson announce the engagement of their only daughter, Winnifred MacGregor, to Pilot Officer Frederick E. Warner, second son of Dr. and Mrs. F. E. Warner of Winnipeg. The wedding to take place on June 1st.



A popular biologist affirms that our girls reach maturity much quicker than boys. On the other hand, when a man reaches forty, how old is his twin sister?—*Winnipeg Tribune*.

Diplomatically speaking, we would say anywhere this side of twenty-nine years, eleven months, three weeks, six days.

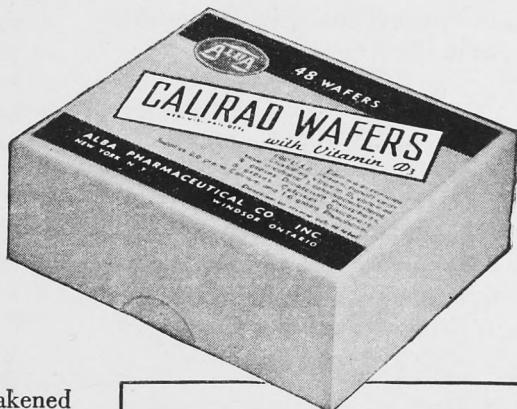


Physical examinations of W.A.A.C.S. and so forth show women's feet are becoming larger.—*Winnipeg Tribune*.

After seeing them in slacks, it is quite apparent that [redacted] are too.

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Winnipeg Medical Society

C. B. STEWART — President

C. M. STRONG — Vice-President

MEETINGS

Third Friday, each month

J. C. HOSSACK — Past President

DIGBY WHEELER — Past President

H. F. CAMERON — Secretary

A. T. GOWRON — Treasurer

Next Meeting

May 21st

MEETINGS

Start exactly at 8:15 p.m.

NOTICE BOARD

The April meeting, I am told, was excellently attended and greatly enjoyed. Unfortunately I was not there and so, instead of giving my own reactions, I am going to record the impressions of others as I heard them later.

The *piece de resistance* undoubtedly was the contribution of Dr. Jackson. "Good old Freddie" was on everyone's lips. And no wonder for he said (I am told) that every doctor in Manitoba would get \$10,000 a year when the new Health Plan came into effect. Some placed the figure at \$11,000 but the assurance of "ten grand" made them generous and they were willing to forget about the extra thousand or might even give it to the Chiro, who, I see, have horned their way into recognition in Saskatchewan. When you think that Dr. Aberhart got the premiership of Alberta on the promise of a measly \$25.00 a month, what is there good enough for Freddie? Why, we might even make him president of our Society! The Plan is supposed to have nothing to do with politics but it seems to me to be remarkably liberal and extraordinarily progressive. Let us hope that it is not mere wishful thinking.

The other day I saw a letter in one of the papers about this Health Plan. It was written by a layman whose jaundiced eye had found a fly in the ointment. He figured that if the doctors approved of it then, from the patient's standpoint, there must be something wrong about it, which caused it, for him, to send forth a stinking savour.

The Plan does, however, undoubtedly have its drawbacks. Could we work efficiently in the unnatural atmosphere of being paid for all we do? Never again could we rid ourselves of an undesirable patient by sending a whopper of a bill. Gone would be the opportunities to practice that charity for which we are proverbial. No more could we exercise our ingenuity in preparing euphemistic addenda to our bills such as: "I am sure that you have inadvertently mislaid my account. Now that it has been brought to your attention I am certain you will settle it promptly." Likewise we are no longer likely to be amused by interesting correspondence such as: "Dear Dr. You have a nerve to send me a bill when you know you nearly killed my wife." Or: "Dear doctor since you took out my insides I've never been the same until I seen Doc. Kramer who fixed me up for \$2, so why

should I pay you when all you did was ruin me?" or "Since I seen you I've been in bed with 4 other doctors but they don't seem to be able to do anything either so I can't pay you."

These are among the delights that we must sacrifice for gross security. And when the great day dawns we shall, I doubt not, say with Ovid, *prospera lux oritur* but at the same time murmur with Marmontel, *Ils se sont passees, ces jours de fete* (For a garnish there is nothing like a touch of the classics).

I am sorry that I missed Dr. James' paper on Osteomyelitis. Personally I am not very interested in his topic, but I have heard Dr. James speak before and he does it with authority and not as the scribes who crib most of their stuff out of a book. I understand that this paper is to be published. It must have been practical judging by what I heard of the discussion it provoked and the favourable comments it elicited.

The third item on the programme was a moving picture dealing with peptic ulcer. There was a time when the promise of a movie assured the success of a meeting, but nowadays it has to be exceptional to receive even a comment. This one appears to have been exceptional, so good in fact that many would like to see it again.

The rasping minutes have filed away another year. It seems only a few weeks ago since we met to elect our president and now in a few days we must choose his successor. Dr. Stewart has been a very faithful servant of this Society, and for a long time. He was secretary for two years and vice-president for one. In both of these offices he performed his duties with most commendable efficiency. As president he has spent time and effort in your interest and to your advantage. It is fortunate that his qualities and experience will be at your service for two more years.

Dr. Stewart tells me that the title of his address will be "The History of the Winnipeg Medical Society." Usually the attendance at the annual meeting is not very large, but to those interested in their Society the reports ought to be important enough to assure their presence. Furthermore your Executive have freely given up their time to show, by their devotion, how much they appreciate your confidence. By attending the meeting you will not only learn to what extent your confidence has been justified but will also

show your appreciation of the efforts put forth on your behalf.

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Last year, you may recall, we instituted the practice of conferring Life Memberships. Previously the custom had been to notify by letter those so honoured of the privilege they now enjoyed. Last year the presentations were made in December—the month of presents and friendly feelings. Dr. Stewart, however, feels that the logical and proper time is at the annual meeting and so it will be done this year. The new Life members will be Drs. S. Elkin, B. J. Brandson, D. S. McKay and D. G. Ross (of Selkirk).

The little ceremony formulated last year will probably be followed. A little bit of ritual adds to the dignity and impressiveness of the occasion. Moreover

it is a means of informing the younger generation about men whose names indeed they know, but of whose influence upon the teaching and practice of the time they are largely ignorant. "Time hath, my lord, a wallet at his back, Wherein he puts alms for oblivion, A great-sized monster of ingratitudes: Those scraps are good deeds past: which are devoured as fast as they are made, forgot as soon as done."

"Cormorant devouring Time!" "Envious, calumniating Time!" Oblivion that "blindly scattereth her poppy!" To them are we all subject. That fact must have a sobering effect upon our vanity and should make us all the more eager to honour those whose "words are wise in their instruction" and who by that instruction exercise often a great but usually an unappreciated influence upon the future. Let us then "declare their wisdom and tell out their praise."

Stewart Memorial Scholarships

Winnipeg Free Press, April 19th, 1943

No man in the medical profession or out of it ever deserved more to have his memory perpetuated in this Province than did Dr. David A. Stewart. Therefore, it is a matter of deeply felt satisfaction that the Department of Education here should have instituted the Dr. David A. Stewart Memorial Scholarships. These are in the nature of bursaries payable to students in rural Manitoba, *i.e.*, outside of Greater Winnipeg, who may desire to enter the University Medical Faculty. There are six awards designed to cover expenses for the pre-medical and the first four years of the course. In order to qualify, the student must have a satisfactory scholastic record, be reasonably healthy, and his financial need must be such that he could not complete the course without assistance.

Under the terms of the award students must sign an agreement with the Provincial Government that at the conclusion of their course they will accept a position with the Department of Health or accept employment in rural Manitoba. For each year they continue in such employment one-fifth of the amount loaned to them will be remitted, which means of course that these students will have all the amount remitted if they remain in the departmental employ or if they practice in the country, for five years after graduation.

There is a peculiar fitness in the terms of this arrangement and in the naming of the memorial, because Dr. Stewart throughout his professional career had an eye singly only to bringing his professional skill to bear where it could do the most good. He never gave thought to a cushy job for himself, although his frail strength must often have suggested such a course to his friends. Moreover, as this national emergency has shown up with vivid clarity what was already becoming noticeable before, medical skill is most unevenly distributed throughout the country.

There are plenty of physicians in the cities, but whole sections of the rural parts are without any.

This has not to do with any condition of there not being sufficient students applying. It has not even to do with an unwarrantable number of these students being residents of the cities. Manitoba Medical faculty only admits so many students a year, and for years has turned down a considerable number of applicants. Toronto University does the same thing. So do the others. Some of this may be because it is thought that the students applying are not of the calibre that would make good doctors. Some of it is because there are not sufficient training facilities for a greater number.

The action of the Manitoba Education Department in providing these awards will not numerically help this situation. It will provide a trickle of doctors for the rural sections, but if the situation continues as at present, then some steps must be taken to expand the Medical Faculty.

Your Gas Ration

This year every car owner who applies for a gasoline ration book is issued with an AA ration book, thus treating all citizens alike. On further application to the Oil Controller special ration books are issued to those proving a special need for gasoline to be used for essential business.

It has been suggested that Medical Men, who in most cases do little or no pleasure driving now, use only their special coupons for obtaining gasoline. The AA ration book can be held in reserve to be used when the special book is depleted and while a new book is being obtained. This new book to be obtained by applying through the Registrar of the C. P. & S. as was done originally and only when the special book is entirely used up.

Department of Health and Public Welfare

Comparisons Communicable Diseases—Manitoba
(Whites Only)

| DISEASES | 1943 | | 1942 | | TOTALS | |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|---------------------------|
| | Feb. 28 to Mar. 27 | Jan. 31 to Feb. 27 | Feb. 26 to Mar. 25 | Jan. 29 to Feb. 25 | Jan. 1 to Mar. 27, '43 | Jan. 1 to Mar. 25, '42 |
| Anterior Poliomyelitis | 1 | 3 | 2 | 1 | 7 | 5 |
| Chickenpox | 110 | 165 | 228 | 294 | 543 | 934 |
| Diphtheria | 27 | 35 | 19 | 21 | 82 | 49 |
| Diphtheria Carriers | 1 | 3 | 2 | 1 | 5 | 4 |
| Dysentery—Amoebic | 1 | ... | ... | ... | 1 | ... |
| Dysentery—Bacillary | ... | ... | ... | ... | 1 | ... |
| Erysipelas | 6 | 5 | 11 | 9 | 16 | 23 |
| Encephalitis | 1 | ... | 2 | ... | 2 | 2 |
| Influenza | 45 | 69 | 19 | 77 | 143 | 151 |
| Measles | 273 | 161 | 898 | 797 | 531 | 2091 |
| Measles—German | 3 | 10 | 59 | 84 | 13 | 163 |
| Meningococcal Meningitis | 2 | 3 | 2 | 4 | 8 | 9 |
| Mumps | 529 | 599 | 574 | 505 | 1563 | 1445 |
| Ophthalmia Neonatorum | ... | ... | ... | 1 | ... | 1 |
| Pneumonia—Lobar | 14 | 13 | 16 | 9 | 40 | 37 |
| Puerperal Fever | ... | ... | 1 | ... | ... | 1 |
| Scarlet Fever | 117 | 106 | 219 | 167 | 266 | 477 |
| Septic Sore Throat | 4 | 4 | 17 | 16 | 8 | 46 |
| Smallpox | ... | ... | ... | ... | ... | ... |
| Tetanus | ... | ... | ... | ... | ... | 1 |
| Trachoma | ... | 1 | 1 | ... | 2 | 1 |
| Tuberculosis | 81 | 47 | 42 | 35 | 158 | 97 |
| Typhoid Fever | 1 | 2 | 28 | 1 | 5 | 4 |
| Typhoid Paratyphoid | ... | ... | ... | ... | ... | ... |
| Typhoid Carriers | ... | ... | ... | 1 | ... | 1 |
| Undulant Fever | ... | 1 | 1 | 1 | 1 | 3 |
| Whooping Cough | 208 | 132 | 28 | 24 | 507 | 71 |
| Gonorrhoea | 118 | 158 | 91 | 107 | 450 | 277 |
| Syphilis | 43 | 39 | 86 | 57 | 127 | 186 |
| Meningococcal Meningitis Carriers | ... | ... | 4 | ... | 6 | ... |

DIPHTHERIA—It seems that we continue to draw your attention to this disease. Are we not justified in doing so when the reports above show that Manitoba had one more case than Ontario, Saskatchewan, Minnesota and North Dakota combined? Toxoid would have prevented 98% of these cases. Last month the large percentage of cases were reported from Greater Winnipeg—not so this month; 14 cases being reported from widely separated rural points.

At this time of year this Department tries to stimulate Health Officers to put on Immunizing Campaigns. We have addressed letters in this regard to Health Officers in several areas where programs have not been carried on for several years. If we have missed any—please forgive and drop us a line—we would be pleased to help you in any way possible. As you know the biological materials are supplied free and the Nursing Division will send out a nurse to assist you.

AMOEBOIC DYSENTERY—One case reported in Manitoba, two in Ontario and five in Minnesota. Is this something new we are going to have to contend with?

DEATHS FROM COMMUNICABLE DISEASE

February, 1943

URBAN—Cancer 43, Pneumonia Lobar 7, Pneumonia (other forms) 12, Tuberculosis 8, Influenza 3, Whooping Cough 2, Diphtheria 1, Syphilis 1, Cerebrospinal Meningitis 1, Septicemia 1, Hodgkin's Disease 1, Skin Disease 1. Other deaths under 1 year 20. Other deaths over 1 year 219. Stillbirths 31 Total 351.

RURAL—Cancer 22, Tuberculosis 14, Pneumonia Lobar 5, Pneumonia (other forms) 9, Diphtheria 2, Influenza 2,

Septic Sore Throat 1, Typhus Fever 1. Other deaths under 1 year 18. Other deaths over 1 year 156. Stillbirths 16. Total 246.

INDIANS—Pneumonia Lobar 1, Pneumonia (other forms) 5, Tuberculosis 5, Influenza 1. Other deaths under 1 year 5. Other deaths over 1 year 7. Total 24.

| DISEASE | Manitoba Feb. 28-Mar. 27 *737,935 | Ontario Feb. 28-Mar. 27 *3,824,734 | Saskatchewan Feb. 28-Mar. 27 *905,974 | Minnesota Feb. 28-Mar. 27 *2,792,300 | North Dakota Feb. 28-Mar. 27 *641,935 |
|--------------------------|---|--|---|--|---|
| Anterior Poliomyelitis | 1 | 1 | ... | ... | ... |
| Chickenpox | 110 | 854 | 60 | 184 | ... |
| Diphtheria | 27 | 9 | 1 | 16 | ... |
| Dysentery — Amoebic | 1 | 2 | ... | 5 | ... |
| Erysipelas | 6 | 2 | 4 | 2 | 2 |
| Influenza | 45 | 282 | 172 | 1 | 11 |
| Encephalitis | 1 | ... | ... | 1 | ... |
| Measles | 273 | 1417 | 923 | 318 | 347 |
| Meningococcal Meningitis | 2 | 16 | 4 | 16 | 2 |
| German Measles | 3 | 125 | 7 | ... | ... |
| Mumps | 529 | 4516 | 429 | ... | 132 |
| Pneumonia, Lobar | 14 | ... | ... | ... | ... |
| Scarlet Fever | 117 | 753 | 129 | 269 | 36 |
| Septic Sore Throat | 4 | ... | ... | ... | 1 |
| Trachoma | ... | ... | ... | 2 | ... |
| Tuberculosis | 81 | 208 | 31 | 29 | 58 |
| Typhoid Fever | 1 | ... | 1 | ... | ... |
| Typhoid, Para-typhoid | ... | 1 | ... | ... | ... |
| Undulant Fever | ... | ... | ... | 1 | ... |
| Whooping Cough | 208 | 495 | 38 | 310 | 61 |
| Diphtheria Carrier | 1 | ... | ... | ... | ... |
| Gonorrhoea | 118 | 380 | ... | ... | ... |
| Syphilis | 43 | 579 | ... | ... | ... |

*Approximate Populations.

DIPHTHERIA TOXOID and PERTUSSIS VACCINE (COMBINED)

The death rate from diphtheria and whooping cough is highest among children of pre-school age. It is desirable, therefore, to administer diphtheria toxoid and pertussis vaccine to infants and young children as a *routine procedure*, preferably in the first six months of life or as soon thereafter as possible.

For use in the prevention of *both* diphtheria and whooping cough the Connaught Laboratories have prepared a combined vaccine, each cc. of which contains 20 Lf's of diphtheria toxoid and approximately 15,000 million killed bacilli from freshly-isolated strains (strains in Phase 1) of *H. pertussis*.

CONVENIENCE

The combined vaccine calls for fewer injections, and, in consequence, the number of visits to the office or clinic may be considerably reduced. It is administered in three doses with an interval of one month between doses.

EFFICACY

Studies have shown that the combined vaccine is an effective immunizing agent against both diphtheria and whooping cough.

DIPHTHERIA TOXOID & PERTUSSIS VACCINE (COMBINED) is supplied by the Connaught Laboratories in the following packages:

Three 2 cc. ampoules—For the inoculation of one child

Six 6 cc. ampoules—For the inoculation of a group of six children.

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Department of Health and Public Welfare

Venereal Disease Control and Reporting

by Dr. K. J. BACKMAN,
*Director, Division of Venereal Disease Control,
 Department of Health and Public Welfare*

The United Nations are aware that venereal diseases are again on the rampage as always in times of war. An increase in venereal diseases has been reported from Great Britain, United States and Canada. A vigorous campaign has been instituted throughout these countries and is being intensified.

At Ottawa a Department has recently been set up under the administration of Lt.-Col. Donald H. Williams, to further the control of venereal diseases, both in the armed forces and among the civilians. A medical officer will also be allocated to each military district whose entire duty will be venereal disease control work. This new set-up will function in co-operation with the Department of Health and other agencies, directly or indirectly concerned in the control of venereal diseases.

The services of Lt.-Col. Williams, who is primarily in the army, are loaned part time to the Department of Pensions and National Health to organize a dominion-wide program of venereal disease control. They in turn are prepared to spend a considerable sum of money, which will materially assist the provinces in enlarging the scope of their work.

As soon as there is extension of facilities now contemplated, further information will be given to the profession.

In Manitoba, the Provincial Department of Health and Public Welfare has conducted a campaign for the past several years and the statistics given herewith clearly indicate that intensification of effort is urgent.

The "red light" district has been eliminated. Illegally operating houses of prostitution are not tolerated. Soliciting by prostitutes on the streets has practically vanished. Yet the trend of venereal diseases is upwards. It is an alarming fact that the increase is chiefly in the younger age group, many of whom are only in their 'teens.

Although there has been considerable improvement in making obligatory reports by private physicians to the Department of Health and Public Welfare on persons suffering from venereal diseases, further co-operation is requested. Physicians are asked to obtain information as to sources and contacts and to forward this information to the Provincial Department of Health and Public Welfare. Every assurance may be given that the person supplying such information will not be brought into the picture at all. The person named as an alleged source or contact will

be dealt with properly and not laid open to any embarrassment. Without this assurance it is usually impossible to get the patient to divulge the required information. The reverse side of the report Form I in the "Physician's Venereal Disease Report Book" can be used for additional information. This report book as well as "Dominion Statistics Free" confidential envelopes are supplied by the Department of Health and Public Welfare. Physicians are also asked to note that Form VI in the same book is used for lapsed cases.

Let it not be said that the "step-child" of medicine is being neglected by our profession.

Gonorrhoea and Syphilis. Table 1

Reported Cases Manitoba—1941-1942

Civilian only:

| | 1941 | 1942 |
|------------------|------|------|
| Gonorrhoea | 783 | 834 |
| Syphilis | 448 | 647 |
| Total | 1231 | 1481 |

Armed Forces only:

| | 261 | 423 |
|-------------------|------|------|
| Gonorrhoea | 261 | 423 |
| Syphilis | 18 | 49 |
| Total | 279 | 472 |
| Grand Total | 1510 | 1953 |

Gonorrhoea and Syphilis. Table 2

Reported Cases—Age 14-24 Inclusive
 Manitoba, 1941 and 1942

| Gonorrhoea: | 1941 | 1942 |
|-------------------|------|------|
| 14-17 years | 33 | 51 |
| 18-19 years | 88 | 155 |
| 20-24 years | 359 | 445 |
| Total | 480 | 651 |

Syphilis:

| | | |
|-------------------|-----|-----|
| 14-17 years | 13 | 19 |
| 18-19 years | 31 | 31 |
| 20-24 years | 68 | 121 |
| Total | 111 | 171 |



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Gonorrhoea and Syphilis. Table 3

Reported Cases, Sources and Contacts
 Manitoba, 1942

| | Reported Cases | Sources or Contacts Given | Percentage of Reported Cases on whom sources and contacts given |
|-------------------------------------|----------------|---------------------------|---|
| Armed Forces | 472 | 201 | 42.6% |
| St. Boniface Clinic | 674 | 229 | 34% |
| Other Clinics and General Hospitals | 217 | 6 | 2.8% |
| Physicians in Greater Winnipeg | 418 | 23 | 5.5% |
| Physicians outside Greater Winnipeg | 172 | 55 | 32% |
| Others | 80 | | |
| Total | 1,953 | 594 | |

Gonorrhoea and Syphilis. Table 4

Results of Investigation of Reported Sources and Contacts—Manitoba, 1942

| | Positive | Negative | Not located | Total |
|-------------------------|----------|----------|-------------|-------|
| Gonorrhoea | 151 | 111 | 81 | 343 |
| Syphilis | 69 | 75 | 6 | 150 |
| Referred for Follow-up: | | | | |
| To other Provinces | | | | 69 |
| To Armed Forces | | | | 32 |
| | | | | 594 |

An Urgent Request

To aid in the war effort, the Department of Health and Public Welfare urgently requests all physicians in the Province of Manitoba, to obtain if possible the names and addresses or even telephone numbers of sources and contacts to the venereal diseases. Any information as to place employed or hangout and description of party is of value to our workers in locating these sources and contacts. These should be reported to the Department on the Venereal Disease Report from the "Physician's Report Book" supplied. The reverse side of the report form may be used if necessary.